

# Work Order ID 51199

August 7, 2009 9:48:14 AM



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Item ID: D058-677-011  
Revision ID: C  
Item Name: Heli-Access-Step LH

Accept



Setup Start



Stop



Start Date: 8/07/09 Start Qty: 1.00  
Required Date: 8/07/09 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: *[Signature]*  
QC:

Date:  
Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2943

RevC

270

0.00



Large Fab

Large Fab

Memo

PULL FROM STOCK:

0.00

- 1 X D058-677-011 B36562 →? ✓ Down in v1 ✓
- 3 X D058-677-011 B41927 →? ✓ Down in k1 ✓
- 2 X D058-677-012 B36563 ✓
- 1 X D058-677-013 B12967 ✓
- 5 X D058-677-013 B13977 ✓ 6?
- 1 X D058-677-014 B12968 ✓
- 5 X D058-677-014 B13978 ✓

SAD 09-08-10

SCRAP STEPS PER ECN09-619

KEEP PARTS FROM KIT AND RETURN TO STOCK:

Adj MF 09-09-09  
parts in  
Intuitive

# **ENGINEERING CHANGE NOTICE** **DART AEROSPACE LTD**

Date: 09.06-25	Job No.: 00681	ADR Yes/No: <b>Y</b>	ADR Date: <b>09.06.2009</b>	ECN #: <b>09- 619</b>
Product No.: D058-677		Created By: <b>AJS</b>	Approved By: <b>[Signature]</b>	
Product Name: HELI ACCESS STEP		Checked By: <b>[Signature]</b>	General Manager Approval:	

Distribution	Reqd	Resp	Initial / Date
Production Manager	Y	LL	
Production Engineering Coord	Y	JLM/EC	
Production Document Control			
Customer Technical Support	Y	DSTOW	

Distribution	Reqd	Resp	Initial / Date
DQA / QA Coord			
QC Coordinator	Y	JM	
Marketing	Y	SW	
Customer Order Processing			

**Reason for Change:** DESIGN IMPROVEMENT SEE PAR 152

**Documents Affected:**  
IIN-D058-677 REV. C  
ICA-D058-677 REV. 1  
D2230 REV. G, D2731 REV C, D2943 REV C & D3394 REV B

**PARTS MUST COMPLY** ☒ **PREVIOUS PARTS SATISFACTORY** ☐

#	Quality Assurance Actions	Reqd	Resp	Notes	Complete
1	Notify Previous Customers	N			
2	Notify Eurocopter France	N			
3					

#	Engineering Actions	Reqd	Resp	Notes	Complete
4	Required Documents/Drawings Under Review	N		SUPERCEDE	
5	Update Product Compatability Matrix	N			
6	Create Eurocopter Form (FEE)	N			
7	Notify TC / FAA of Change	N			

#	Document Control Actions	Reqd	Resp	Notes	Complete
8	Move Electronic Files	Y	KJ		09.06.25
9	Update Blue/Pink/DSI Folder and Electronic Files	Y	KJ		09.06.25
10	Update Controlled PDF Files	Y	KJ		09.06.25
11	Update Master Document List (MDL)	Y	AJS	628 Rev.I / 677 Rev.D / 591 Rev.B / 628 Rev.H	09.06.25 AJS
12	Update Document Record (DR)	Y	KJ	591 Rev.O / 602 Rev.O / 607 Rev.Q / 628 Rev.H	09.06.25
13	Update Product Development Summary	N		677 Rev.C / 721 Rev.D	
14	Update QSI 021 and/or STC Approval List	N			
15	Update Parts / STC Database	N			
16	Update / Verify ARC Database	Y			
17	Create / Update Change Record Form	Y	KJ		
18	Create / Update PPP's	Y	KJ		
19	Update Document Control Database / Laminated Dwgs	N			
20	Update Grey Project Binder	Y	KJ		09.06.25
21	Update D-Part/M-Drawing/DSI/DEO Master Binders	Y	KJ		09.06.25
22					
23					

**Description / Action:**  
UPDATE CHANGE RECORD: D058-677-011 FROM CHG 001 - CHG 002  
D058-677-012 FROM CHG 001 - CHG 002 - **OK**  
D058-677-013 FROM CHG 001 - CHG 002 - **OK**  
D058-677-014 FROM CHG 001 - CHG 002 - **OK**

RELEASE: IIN-D058-677 REV. C  
ICA-D058-677 REV. 1 - **at rev F.**  
D2230 REV. G  
D2731 REV C  
D2943 REV C  
D3394 REV B

**Not in system.**

ECN Verified & Complete: \_\_\_\_\_ Date: \_\_\_\_\_

Preventive Action Report						PAR 152	
Raised by: Bill Beckett			Source: Chief Engineer			Sheet No. 1 of 1	
Issue for Dept./Supplier: Engineering						Date: 06/05/16	
Product/Service: OH-58 LANDING GEAR.						Priority: HIGH LOW	
Area of Standard:		Section A Description of Issue  TO PREVENT CRACKING IN WELD AS SEEN IN CAR 180. SIMILAR DESIGN D206-628-XX.					
QSI							
QSP							
QSPM							
Documents:							
P/O							
Invoice							
W/O							
Batch No.							
TSR							
Drawing							
Forward to Director, Quality Assurance on completion of this box							
DQA: Section B: Indicate who is responsible for creating P/A, and a completion date. Section C: Indicate who will verify completion of P/A.							
Section B Preventive Action		Responsible for Investigation/PA: SERGE / Mike Peters To be done by: 06/06/29					
No	Initial	Action Description	Responsible	Due date	Sign/Date		
1.	D.T.	Put everything under Review (D058-677)	P.H/M.P.	06/05/16	CB		
2.	D.T.	Redesign <del>A 058-677</del> to Similar Design AS D206-628-XX	P.H/M.P.	AS	06/06/29		
						Fault Category:	
Section C Verification of P/A		Responsible for Verification of PA: DALE KERNANIER					
No	Verification Method	Sign	Date	Forward to DQA on Completion of Verification			
				DQA: _____			
				Date: _____			
QA Purposes only		P/A Closed		Date			

5752

**AMENDMENT DESIGN REVIEW (ADR)**Part/Installation No.: D058-677 Rev: G Design Review No.: 1 Date: 09.01.20Project Number: 00569 Project Description/Title: Heli-Access-StepEng. Project Manager: Alan Stocker

Persons Present	Title	Initial
Mike Petsche	Design Manager	<i>[Signature]</i>
Alan Stocker	Engineering Project Manager	<i>[Signature]</i>
David Shepherd	Chief Engineer (DE #02)	<i>[Signature]</i>
	Manufacturing Manager	
	Quality Manager	
Peter Hum	Mechanical Designer	<i>[Signature]</i>

**Comments**

Minor design improvements have been made to D058-677-011/-012/-013/-014 Heli-Access-Steps to prevent cracking of the step (see PAR 152). Further minor improvements were made to installation clamps to prevent and the installation of the clamps to prevent potential damage to the aircraft's cross tubes. These improvements included:

1) To prevent the step from cracking the D2943-041/-042 Step assemblies we re-designed from a single lug attachment to a double lug this also required the creation of the D3855-1/-3 lugs (See D2943 Rev C).

2 To prevent potential damage to the aircraft's cross tubes D2732-030 Rubber cushions were added between the installation clamps and cross tubes in installation instructions see IIN-D058-677 Rev. C page 6 Section B-B.

3) The D2230 & D2731 clamps have been updated with radii on the points where the clamps contact the D2732-030 Rubber cushions this will prevent chafing of the cushions and help prevent potential damage to the aircraft's cross tubes (see D2230 Rev G section A-A as example).

Send documentation to FAA DER Dave Mc Clenahan

Key Tasks (Check or N/A)	Check	Responsible	Completion Date
Review Outstanding TSR/NCR/CAR/PAR	Y	AJS	
Fill out Criteria/Constraints Form – Inputs	N		
Fill out Project Evaluation Form	N		
D-Part creation/revision	Y	AJS	
Get Manufacturing Input	Y	AJS/DSTOW	
First Article Inspection	N		
Fit and Function Test	Y	AJS/DSTOW	
Structural Test	N		
Reports (Compliance, Loads, Stress, Conformity, DSI)	N		
Check Drawings against all QSIs	Y	AJS	
Review Criteria/Constraints Form	N		
Revision to existing approval	N		
Close Amendment Project	Y	AJS	

**Conclusion:**

Release IIN-D058-677 Rev. C, ICA-D058-677 Rev. 1, D2230 Rev. G & D2731 Rev. C Per ECN.

## List Lots

July 28, 2009 10:50:02 AM

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Criteria : Item ID: D058-677-011RevB All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name	Location ID				Lot Code		
D058-677-011RevB	Main Warehouse	36562		1.0000	QC21	CHG001	
Heli-Access-Step LH	FG						
	Main Warehouse	41927		3.0000	QC21	CHG001	
	FG						
Total:				4.0000			

See 1st page

## List Lots

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Criteria : Item ID: D058-677-012RevB All Locations All Warehouses All Quantity

Item ID Item Name	Warehouse ID Location ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Lot Code	Type Code	Comments
D058-677-012RevB Heli-Access-Step RH	Main Warehouse FG	36563		2.0000		QC21	CHG001	

Total: 2.0000

See 1st page

## List Lots

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Criteria : Item ID: D058-677-013 All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name	Location ID				Lot Code		
D058-677-013	Main Warehouse	12967		1.0000	QC21	CHG001	
Heli-Access-Step LH	FG						
	Main Warehouse	13977		5.0000	QC21	CHG001	
	FG						
			Total:	6.0000			

See 1st page

## List Lots

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Criteria : Item ID: D058-677-014 All Locations All Warehouses All Quantity

Item ID	Warehouse ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Type Code	Comments
Item Name	Location ID				Lot Code		
D058-677-014	Main Warehouse	12968		1.0000	QC21	CHG001	
Heli-Access-Step RH	FG						
	Main Warehouse	13978		5.0000	QC21	CHG001	
	FG						
Total:				6.0000			

*See Page 1*





1-Part Sup	1-Part Hardware	R#	Qty	R#	Qty
D058-677-014	D0230-3	B9773	1		
B12968	D0230-1	B9772	1		
Qty 1	D0231-3	B9113	1		
	D0231-1	B9761	1		
	D0231-5	B9443	2		
	D0231-7	B9758	2		
	MS21042-4	M7690	12		
	AN9605D416	M7700	12		
	AN4-12A	M6071	8		
	AN4-11A	M8170	8		
D058-677-013	D0231-1	B9761	2		
B#12967	D0231-5	B9443	2		
Qty 1	D0231-7	B9758	2		
	D0231-3	B9113	2		
	MS21042-4	M7690	12		
	AN9605D416	M7700	12		
	AN4-12A	M7700	8		
	AN4-11A	M8170	4		
B	D0231-1	B97719	2	B334530	2
D058-677-012	D0231-3	B30994	4		
B#36563	D0231-5	B22591	4		
Qty 2	D0231-7	B34125	2	B33420	2
	AN4-11A	M164214	8		
	AN4-12A	M105143	16		
	AN9605D416	M106277	24		
	MS2104274	M105938	24		

D-Part Step	D-Part Hardware	B#	Qty	B#	Qty
D058-677-011 B36562	D2731-7	B34125	2		
	D2731-5	B22591	2		
	D2731-3	B33995	2		
	D2731-1	B9112	2		
	AN4-11A	M104214	4		
	AN4-12A	M105143	8		
	AN460J0416	M106277	12		
	M52104214	M105938	12		